

Norman H. Bangerter, Governor Dee C. Hansen, Executive Director Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 21, 1985

CERTIFIED RETURN RECEIPT REQUESTED (P402 457 17%)

Mr. Glenn M. Eurick
Environmental and Occupational
Health Coordinator
Getty Mining Company
P. O. Box 838
Tooele, Utah 84074-0838

Dear Mr. Eurick:

RE: Proposed MRP Amendment to Mercur Gold Mine, ACT/045/013, Tooele County, Utah

The Division has completed the initial review of the MRP Amendment for the Mercur Gold Mining Project submitted March 7, 1985 and the reclamation cost estimate submitted March 12 for the proposed dump leach operations. The Division has developed a series of comments which must be addressed prior to completion of the review and approval process.

Hydrology - TJS, DH

Rule M-3(1)(h)

Getty has not described in sufficient detail the expected impacts on downgradient ground water. It appears from the brief presentation that if a leak in the liner system were to develop, it would be almost impossible to stop the leach solution from entering the strongly fractured Great Blue Limestone. Once such leach solution were in the formation, it would most probably be conveyed downdip toward Cedar Valley. Presently, no deep aquifers are developed or intercepted by water users in the Cedar Valley. The Division must be able to evaluate the expected quality of this water, if it were intercepted or developed. Would the leach solution be dispersed and diluted so as to be of little concern, or would it flow in a concentrate slug? A worse case situation should be considered assuming that most of the leach solution were lost to the aquifer.

Page 2 Mr. Glenn M. Eurick ACT/045/G13 May 21, 1985

There is little justification for the figures that Getty presented in the development of plans for the sizing of the new diversion ditches and estimate of additional volumes of water entering sediment ponds B, Cl and C2 (page 3). The mine plan itself gives only slightly better information about diversion and pond capacities. Please provide the Division with the calculations and sizing specifics that were utilized by the Company in designing the structures. Additionally, the Company has failed to demonstrate that the leach dump liners will hold the leach solution in addition to a 10-year, 24-hour precipitation event.

Rule M-10(6)

As defined by Rule M-2(k), the sodium cyanide/sodium hydroxide is a potentially toxic material. Getty must describe in the plan how this material will be treated, removed or isolated at the mine site.

Biology - SCL

Rule M=3(2)(e)

A more specific reclamation plan for the heap leach area should be provided. Getty may reference back to the original MRP (pages 2-55 through 2-58) as appropriate. It should also be specifically indicated which seed mixes and which tree and shrub lists will be used on the sites.

Rule M-10(12)

A map of the same scale as Map 2.2-4d should be submitted which shows the outline of the permit area and the outline of the disturbed area (including disturbance proposed by this revision) superimposed over the vegetation type delineation. Getty should supply the lists of vegetation species encountered in each vegetation type as an appendix to the MRP.

In the original MRP (page 2-47 and page 2-53), Getty indicated that test plots would be used to examine potential for plant production on overburden materials. A letter from Brian Buck received April 26, 1982 indicated that test plot designs would be drawn up once the mine became operational in mid-1983. Please apprise the Division as to the status of these test plots.

Page 3 Mr. Glenn M. Eurick ACT/045/013 May 21, 1985

Rule M-5

The surety bond must include an amount for monitoring of reclamation success during the postreclamation liability period.

Engineering - JRH

Getty should describe in more detail what measures will be required to minimize public health and safety hazards associated with the leach dump operations. Items of concern would include but not be limited to, the following:

- 1. Is there a potential problem of contamination by drift from the sprinklers into areas adjacent to the leach dumps, especially during windy periods?
- Where and how will the leach solutions be prepared and what safeguards will be used to prevent contamination during this process?
- 3. What permits, regulations or requirements are required by the Mine Safety and Health Administration (MSHA), Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) and other state and federal agencies concerning the handling and use of cyanide? Getty should confirm that operation of the leach dump facilities will comply with all such regulations.

Rule M=10(3)

Since the leach dumps are impounding facilities, Getty will need to describe in their reclamation plans how the configuration of the dumps will be changed to allow drainage.

Rule M=10(4)

Getty has not provided reclamation contours for the proposed leach dumps. Maps and plans for reclamation should include surface grading plans for the dumps upon completion.

Page 4 Mr. Glenn M. Eurick ACT/045/013 May 21, 1985

Rule M-10(6)

Getty should describe in more detail how the sodium cyanide/sodium hydroxide leach solution will be purged and neutralized upon abandonment of the leach dumps. After final flushing of the leach dumps, how much cyanide will remain in the dump? Can or will other chemicals be added to neutralize the remaining cyanide or render it harmless by precipitation into an inert compound? Does oxidation of the cyanide solution promote neutralization?

Rule M-10(8)

Reestablishment of natural drainages through the disturbed areas has not been included in the reclamation plans for the leach dumps. The operator must address this deficiency.

Soils - TLP

- 1. What information was used to project the available depth of topsoil for removal? This information must be included or referenced for review.
- 2. From Section 1.3 of this application, it appears that grub vegetation will be included in the topsoil stockpile. What benefits are to be derived from this approach? Please provide a justification.
- 3. The application in Section 1.3 proposes placing newly generated topsoil on existing soil stockpiles. This is not a viable option (excessive soil storage depth and loss of existing vegetation on stockpile). Please revise the plans and show locations of new topsoil stockpiles. Also, it is neither necessary nor desirable to create a uniform sloping ground surface at the soil storage location. Please amend to show a roughened surface (more resistant to erosion).
- 4. Topsoil redistribution is discussed in Section 3.2 of the application. How was the four inch redistribution depth arrived at (see question #1 above)? How will uniform soil redistribution be assured on the dump slopes? "Placement over slopes" must be elaborated on.

Page 5 Mr. Glenn M. Eurick ACT/045/013 May 21, 1985

> 5. Is there a letter from Tooele County indicating their willingness to assume responsibility for the roads after mining has ceased? Please provide a copy of the same.

Please provide a response to these remaining concerns as soon as possible. These concerns must be addressed prior to the Division's issuance of final approval for this proposal. Should you have questions, please feel free to contact us at your earliest convenience.

Sincerely,

Sure P. Braxton

Administrator

Mineral Resource Development and Reclamation Program

DWH/btb

cc: Randy Harden
Wayne Hedberg
Dave Hooper
Sue Linner
Tom Suchoski

8992R-72-76